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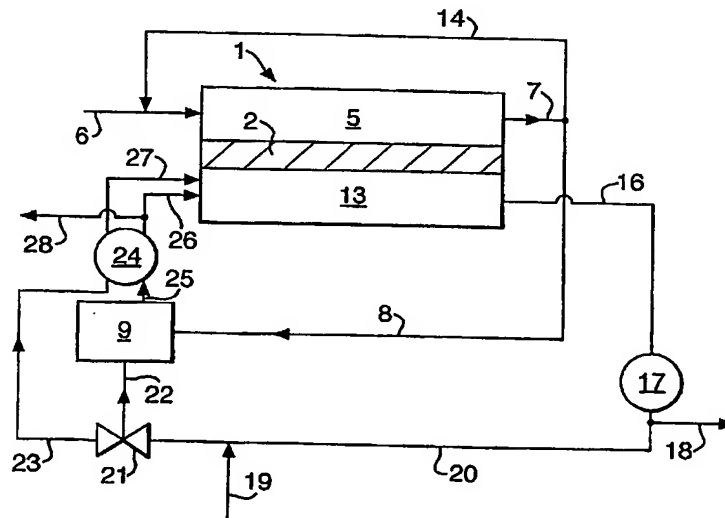
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(54) Title: PROCESS FOR GENERATING ELECTRICITY AND CONCENTRATED CARBON DIOXIDE



(57) Abstract: A process for the generation of electricity and the production of a concentrated carbon dioxide stream using a molten carbonate fuel cell (1). Anode off-gas is at least partly fed to a catalytic afterburner (9) wherein it is oxidised with an oxidant stream comprising at most 20% (v/v) nitrogen. The oxidised anode off-gas is brought into heatexchange contact with the remainder of the cathode off-gas and the remainder of the external oxidant stream to obtain cooled anode off-gas and a heated mixture of cathode off-gas and external oxidant which are fed to the cathode chamber (13) as the cathode inlet gas. As soon as a set point in the carbon dioxide concentration at the cathode chamber outlet is reached, part of the cooled anode off-gas is withdrawn from the process.